Amendments to the Specification:

Please replace the paragraph beginning at page 3, line 15, with the following amended paragraph:

In another embodiment of the invention, a method is provided for altering gene expression in a population of human embryonic stem cells~~,~~ that includes: introducing into the population of cells by electroporation or in the presence of a cationic polymer, a DNA sequence corresponding to at least one of an enhancer, a promoter and a gene so as to alter gene expression in the population of embryonic cells in an amount to permit cells containing the DNA sequence to be distinguished from cells absent the DNA sequence.

Please replace the paragraph beginning at page 18, line 6, with the following amended paragraph:

Cell Culture: Human ES cells were grown on a feeder layer of mouse embryonic fibroblasts (MEF) and then transferred to gelatin coated plates and cultured further to reduce the number of murine cells in the culture. Differentiation into embryoid bodies (EBs) was initiated by transfer to petri dishes, where the embryoid bodies remained in suspension~~.~~ (Schuldiner 2000)._ ~~differentiated~~ Differentiated embryonic (DE) cells were formed by dissociating the EBs after 5 days and culturing them as a monolayer.

Please replace the paragraph beginning at page 19, line 14, with the following amended paragraph:

Transfection and Establishment of Transgenic Cell Lines: Fully expanded and undifferentiated human ES cells underwent stable transfection with Rex-1-EGFP plasmid DNA (Rex-1 is a gene specific to undifferentiated ES cells (the Rex-1 gene) ExGen-500 transfection system (Fermentas) was used. Transfection was carried out in the human ES cells in 6-well plates on feeder cells, and was performed as described by the manufacturer's protocol. Specifically, the cells were ~~incubation~~ incubated at room temperature with the transfecting agent for 10 minutes (2 μg of plasmid DNA plus 1 μl of ExGen 500 in 1 ml media per well), centrifugation at 1100 rpm for 5 minutes and incubation at 37°C in a moist chamber for 45 minutes. Residuals of transfecting agent were removed by washing twice with PBS. The following day, the cells were trypsinized and re-plated on 10 cm^2 culture dishes containing inactivated MEFNeo+. Two days after transfection G418 (200 ng/ml) was administered to the growth medium, allowing the selective propagation of transfected cells in culture. By day 14, Neo resistant fluorescent-labeled colonies were identified by a fluorescent microscope. Single transgenic colonies were picked off by a micropipette, dissociated into small clumps of cells and transferred into a 2 cm^2 (24-well) culture dish, on a

fresh feeder of MEFNeo+. The cells continuously proliferated in the presence of G418 and formed a large number of expanding undifferentiated colonies, which express EGFP consistently high by all of the cells within the colony. Overcrowded cultures were trypsinized and propagated in 10 cm^2 culture dishes for several passages to allow the establishment of individual cell lines, derivatives of a single transfected human ES cells.